

REMARKS

By this Amendment, claims 1, 5, 6, 10 and 15 have been amended and new claims 18-23 have been added. No new matter has been added. Accordingly, after entry of this Amendment, claims 1-23 will be pending in the patent application. Reconsideration and allowance of the present patent application based on the foregoing amendments and following remarks are respectfully requested.

Claims 5, 6 and 15 have been amended merely to correct typographical errors and otherwise to further recite the invention, without the intention of narrowing the scope of any claims nor in response to any rejection.

New claim 18 merely provides dependent claim support to independent claim 10. New claim 19 is allowable claim 12 converted into independent claim form and thus is patentable over the cited references. New claims 20-23 merely provide dependent claim support to new independent claim 19.

Claims 1-4, 8-11 and 14-17 were rejected under 35 U.S.C. §103(a) based on U.S. Patent Application Publication No. 2003/0082030 to del Puerto et al. ("del Puerto et al.") in view of U.S. Patent No. 6,842,221 to Shiraishi or U.S. Patent No. 6,829,038 to Miwa. The rejection is respectfully traversed.

Applicant respectfully submits that del Puerto et al., Shiraishi, Miwa or any proper combination thereof fail to disclose, teach or suggest a lithographic projection apparatus comprising, *inter alia*, a dust-tight storage container defining a non-vacuum storage space to contain at least one patterning structure, wherein the storage container is arranged to be coupled with a transfer container to exchange said at least one patterning structure through a closeable passage between the transfer container and the storage container, the passage closeable using a shutter of the storage container, and a vacuum chamber to receive said at least one patterning structure via or from the storage container as recited in claim 1.

Del Puerto et al. disclose a substrate protection and transport system and method for transitioning a substrate from atmospheric pressure to vacuum in a lithography tool. The system includes, in an embodiment, a removable substrate transport cassette 800 comprising base portion 807 and top portion 811. A substrate 801 rests on the removable substrate transport cassette's 800 bottom portion 807. Box 903 is used to contain removable substrate transport cassette 800 and substrate 801. The substrate transport system further comprises an

entry-exit module 913. The entry-exit module 913 comprises a detach, a loadlock 925, and a transfer shuttle 923. Entry-exit module 913 comprises a ledge 917 and an elevator 921. The detach unlatches box lid 915 of box 903 from base 919 of box 903. Base 919 rests on elevator 921. Next, elevator 921 lowers base 919, which supports the cassette-substrate arrangement (removable substrate transport cassette 800 containing substrate 801), away from box lid 915. The cassette-substrate arrangement is then further transported towards where the substrate is used for lithographic processing. del Puerto et al., paras 70-82.

However, del Puerto et al. fail to disclose a dust-tight storage container, *inter alia*, arranged to be coupled with a transfer container to exchange a patterning structure through a closeable passage between the transfer container and the storage container, the passage closeable using a shutter of the storage container. To keep particles from the patterning structure, del Puerto et al. use a cassette-substrate arrangement (i.e., the substrate is encased in a cassette) as discussed above. Del Puerto et al. do not disclose that entry-exit module 913 is dust tight or that the entrance of the entry-exit module 913 at ledge 917 is closable using a shutter of the entry-exit module 913. Indeed, it need not be since the cassette-substrate arrangement protects the substrate from particles. However, possible disadvantages of the del Puerto et al. arrangement are that the cassette-substrate arrangement may require specially-made equipment and/or cause loss of throughput due to extra handling, aspects which may be advantageously avoided with the claimed invention.

Shiraishi and Miwa are merely cited as disclosing an illumination system and a projection system. Thus, even if there were a proper motivation to combine (which Applicants submits there is not), the cited combination of del Puerto et al, Shiraishi and Miwa fail to disclose, teach or suggest the invention of claim 1.

Further, Shiraishi is alleged to teach or suggest a vacuum chamber through its disclosure of "pressure reducing pumps". Applicant respectfully disagrees at least because Shiraishi teaches away from such a possibility.

Shiraishi discloses a lithographic apparatus including an illumination system housing 2 that is coupled with a reticle room 15, which, in turn, is coupled with a reserve room RI that includes a first room 83 and a second room 84. (See FIGS. 1 and 9). Shiraishi discloses that the housing 2, the reticle room 15 and the reserve room RI are maintained under a predetermined pressure of low absorbent gas higher than the atmospheric pressure in order to limit the external atmosphere from leaking into the inside of each room. (See col. 15, lines 1-16, col. 24-32, col. 17, lines 51-58, col. 34, lines 65-67 and col. 35, lines 1-11). Specifically,

Shiraishi discloses that the controller 100 is configured to control the gas supply valves "such that the pressure of the specific gas atmosphere inside the first and second rooms 83, 84 of the reserve room R1 is the predetermined target value as in the reticle room 15 and wafer room all the time." (See col. 35, lines 1-4, emphasis added). Therefore, Shiraishi teaches away from providing vacuum to rooms 83 and 18. Applicant respectfully notes that the suggested modification would defeat the intended purpose of preventing a flow of contamination from entering these rooms. (See MPEP §2143). For at least this reason, it is respectfully submitted that it would not have been obvious to combine Shiraishi's teachings with the teachings of del Puerto et al. or those of Miwa.

Claims 2-4 and 8-9 are patentable over del Puerto et al, Shiraishi, Miwa or a proper combination thereof at least by virtue of their dependency from claim 1 and for the additional features recited therein.

Claim 10 is patentable over del Puerto et al, Shiraishi, Miwa or a proper combination thereof for at least similar reasons as provided above for claim 1. Namely, claim 10 is patentable over del Puerto et al, Shiraishi, Miwa or a combination thereof at least because this claim recites a method of manufacturing a device comprising, *inter alia*, transferring a patterning structure from a transfer container into a substantially dust-tight non-vacuum storage space of the lithographic apparatus through an opening closeable by a moveable part of the outer portion of the lithographic apparatus. Therefore, claim 10 is patentable.

Claims 11 and 14-17 are patentable over del Puerto et al, Shiraishi, Miwa or a proper combination thereof at least by virtue of their dependency from claim 10 and for the additional features recited therein.

Accordingly, reconsideration and withdrawal of the rejection of claims 1-4, 8-11 and 14-17 under 35 U.S.C. §103(a) based on del Puerto et al. in view of Shiraishi or Miwa are respectfully requested.

All objections and rejections having been addressed, Applicant respectfully submits that the application is in condition for allowance, and a notice to that effect is earnestly solicited. If any point remains in issue which the Examiner feels may be best resolved through a personal or telephone interview, please contact the undersigned at the telephone number listed below.

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Respectfully submitted,

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